

**Figure 1** Map of Human IL-17 Like cDNA (SEQ ID NO:1) and Amino Acid (SEQ ID NO:2) Sequences

1	CTCAAGTCACCTCCTAAAAAGACAGTGGAAATAATTGAATAACAAACAGGGCTTGCT	181	TGGCAATGGTCATGGGAACCCACACCTACAGCCACTGGCCCAGGCTGGCTGCCCAAG	1	M	Y	Q	V	V	A	F	L	8						
9	A M V M G T H T Y S H W P S C C P S K G	241	GGCAGGACACCTCTGAGGGAGCTGGCTGAGGTGGAGCACTGTGCCTCCCTAGAGC	29	Q D T S E E L L R W S T V P V P L E P	301	CTGCTAGGCCAACGCCACCCAGACTCCTGTAGGGCCAGTGAAGATGGACCCCTAACAA	49	A R P N R H P E S C R A S E D G P L N S	361	GCAGGGCCATCTCCCCCTGGAGATATGAGTTGGACAGAGACTTGAACCGGCTCCCCAGG	69	R A I S P W R Y E L D R D L N R L P Q D	421	ACCTGTACCAAGCCCCGGCTGGCCGCACTGCGTCAAGCAGGCTCCACACA	89	L Y H A R C L C P H C V S L Q T G S H M	108	TGGACCCCCGGGCAACTCGGAGCTGCTTACCCACAACCGAGACTGTCTTACCGGGGG
61	GAAAATAAAATCAGGACTCTAACCTGCTCCAGTCAGCTGCTTCCACGAGGGCTGTGAG	481	D P R G N S E L L Y H N Q T V F Y R R P	109	CATGCCATGGGAGAACCCACAAGGGCTACTGCCTGGAGGCCAGGGCTGTACCGGTG	129	C H G E K G T H K G Y C L E R R L Y R V	601	TTTCCCTTAGCTTGTGTGTGGCCCCGGCTGTGATGGGCTAG	149	S L A C V C V R P R V M G * 162	148	643						
121	TCAGTGCCCCACTTGTGACTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAG	181	A M V M G T H T Y S H W P S C C P S K G	241	CTGCTAGGCCAACGCCACCCAGACTCCTGTAGGGCCAGTGAAGATGGACCCCTAACAA	301	GCAGGGCCATCTCCCCCTGGAGATATGAGTTGGACAGAGACTTGAACCGGCTCCCCAGG	69	R A I S P W R Y E L D R D L N R L P Q D	421	ACCTGTACCAAGCCCCGGCTGGCCGCACTGCGTCAAGCAGGCTCCACACA	89	L Y H A R C L C P H C V S L Q T G S H M	108	TGGACCCCCGGGCAACTCGGAGCTGCTTACCCACAACCGAGACTGTCTTACCGGGGG				

**Figure 2A**  
(Map of Mouse IL-17 Like cDNA (SEQ ID NO:3) and Amino Acid (SEQ ID NO:4) Sequences with Predicted Signal Peptide

1	<b>AATGTA</b> CCAGGCTCTTGCATTCTGGCAATGATGATCGTGGGAACCCACACCGTCAGGTTG	M Y Q A V A F L A M I V G T H T V S L	19
58	<u>CGGATCC</u> AGGAGGGCTGCAGTCACTTGGCCAGCTGGCTGCCAGGAAAGGCAAGAACCC		
111	R I Q E G C S H L P S C C P S K E Q E P		39
118	CCGGAGGTGGCTGAAGTGGAGCTCTGCATCTGTCCCCAGAGCCTCTGAGCCAC		
31	P E W L K W S S A S V S P P E P L S H		59
178	ACCCACCACGAGAATCCTGCAGGCCAGCAAGGATGGCCCTCAACAGCAGGGCCATC		
51	T H H A E S C R A S K D G P L N S R A I		79
238	TCTCCTTGGAGCTATGAGTTGGACAGGGACTTGAATCGGGTCCCCCAGGACCTGTACCA		
71	S P W S Y E L D R D L N R V P Q D L Y H		99
298	GCTCGATGCCCTACACTGGCTCAGCCTACAGACGGCTCCACATGGACCCGCTG		
91	A R C L C P H C V S L Q T G S H M D P L		119
358	GGCAA	ACTCCGGTCCCACCTTACCCAAACAGACGGTCTTCTACGGCCATGCCATGGC	
111	G N S V P L Y H N Q T V F Y R R P C H G		139
418	GAGGAAGGTACCCATGGCGCTACTGGTGGAGGCAGGGCTACCGAGTCTCCTGGCT		
131	E E G T H R R Y C L E R R L Y R V S L A		159
478	TGTGTGTGTGCGGCCGGGTCA	TGCTAGTCATGTCACCAACCTGCCTGAGGTGA	
160	C V C V R P R V M A *		170
538	TGCCCGGTTGGAGAGGGCCAGGTGTCATACTGCAATTCACCTTGCCAA	TGGGGCCGGTTCAA	
598	GCCCTCCA	AAAGCCCTAACCTGAAAGCAGGCAAGGACTTGAGGAG	
658	AAACTCTGACTTTGCACTTTGGAAAGGCACTTTGGCTTGTC		

Figure 2B

TGCTAGAGGATGCTGTGTGGCATTTCTACTCAGGAACGGACTCCAAGGCCTGCTGACC  
 CTGGAAAGCCATACTCCTGGCTCCTTCCCTGAAATCCCCAACTCCTGGCACAGGCCACTT  
 TCTCCACCTCCCCCTTGGCCTTTTGTGTGTGATGCCAACTCTGGTGC  
 AGCCAGGGTGAATTGCCTTGAAAGGATGGTTCTGAGGTGAAAGCTGTATCGAAAGTGAAG  
 AGATTATCCAAATAACATCTGTGTTAAAAA  
 718  
 778  
 838  
 898  
 958  
 1426

Map of Non-Secreted Form of Mouse IL-17 Like cDNA (SEQ ID NO: 9), and Corresponding Amino Acid Sequence (SEQ ID NO: 10)

1	CGGGCAGGTGCCCTCGCGTCCCCAAAGCTTAGGGAAAGCTCCAGGTGTCTTGGAAAT	M	I	V	G	T	H	T	V	S	L
61	GAAGAAAAGGCCACCGGAAACAGAAAGGGAGGAGGAGGAGGAGGAGGAGGAGG	R	I	Q	E	G	C	S	H	L	P
121	GCCTAGGGTGGGGCCATTATCACCTACAAATCAGAATGTGGGAGTGTCTATTCTAGAGG	C	C	P	S	C	C	P	S	K	E
181	TCTCCATCTTGCATTGCTGGTGGCTCAGAAAAGTGTGATGGGGTTGTCCTCCATTGCCA	P	P	S	S	P	P	S	S	P	P
241	AGAACAGCTTCTGGCTTACCCAGGTGCTGACCTCTTCCCCAGAGGACAGGGAAAGGAA	AG									
301	TTCCAGCCCCGGTTGGCTGCCAGGGCTTCCCTCTGGGTTGGTACAGAGGGAGGAAAG	AG									
361	AAACCCCAATGTCTCCTATGAAAACAATGTCCTCCATCCAGGCCAGATCATTTCTGC	AC									
421	AGTGTCAAACAGTTGAGACAAGGAAGGTGGGTCAATTCTGTGCCTAAAGAGTGCCTGTCT	AC									
481	GCACCTGGCCAAAGGCTGTGCAATTCTGGCAATTGATGGGGAAACCCACCCGTCAAGCTTG	AC									
541	CGGATCCAGGAGGGCTGCAGTCACCTGCCAGCTGCTGCCAGGCCAGCAAGGAACCC	AC									
601	R	I	Q	E	G	C	S	H	L	P	P

Figure 2C

Pile-Up of Human IL-17 Like Amino Acid Sequence, hIL-17L (SEQ ID NO: 2), with a Known Human IL-17 Family Member Amino Acid Sequence, hIL-17

Smith-Waterman score: 155; 25.0% identity in 160 AA overlap

hIL-17L	XNQDSXPAPVSSLPRGLSVSAPLVTECAVPSMYQVVAFLAMVGMGTHTYSHWPSSCCPSKGQ	10	20	30	40	50	60
hIL-17	MTPGKTSLVSLLLSLEAIVKAGITIPRNPGCNPNSEDK	10	20	30			
hIL-17L	DTSEELLRWSTVPVPPLEPARPNRHPESCRASEDGPLNSRAISPWRYELLDRLNRLPQDL	70	80	90	100	110	120
hIL-17	NFPRITVMVNLMN-----HNRNTNTNPK--RSSD---YYNRSTSPWNLHRNEDPERYPSVI	40	50	60	70	80	

YHARCLCPHCVSLQTGSHMDPLGNSVPLYHNQTVFYRRPCHGEEGTHRRYCLERRLYRVS  
WEAKCRHLGCIN--ADGNVDYHMNSVPIQQEILVLRREPPHCPNS----FRLEKIL--VS

Figure 3B

hIL-17L 130 140 150 160 170 180  
YHARCLCPHCVSLQTGSHMDPLGNSVPLYHNQTVFYRRPCHGEEGTHRRYCLERRLYRVS  
::|:|::|::|::|::|::|::|::|:|:|:|:|:  
hIL-17 90 100 110 120 130 140  
WEAKCRHLGCIN--ADGNVDYHMNSVPIQQEILVLRREPPHCPNS----FRLEKIL--VS

hIL-17L 190  
LACVCVRPRVMA  
::|:|:|:  
hIL-17 150  
VGCTCVTPIVHHVA

**Figure 4**  
Pile-Up of Human IL-17 like Amino Acid Sequence, hIL-17L, (SEQ ID NO:2)  
with a Known Human IL-20 Amino Acid Sequence, hIL-20 (SEQ ID NO:6)

SCORES Init1: 124 Initn: 124 Opt: 175  
 Smith-Waterman score: 175; 36.7% identity in 90 aa overlap

HIL-17L	RWSTVPVPPLEPAPRPNRHPESCRASEDGPLNSRAISPWRYEILDLNRLPQDLYHARCLC RNIEEMVAQLRNSSELAQRKCEVNQLWMSNKRSLSPWGY SINHDPSRIPVVDLPEARCLC	70 80 90 100 110 120 70 80 90 100 110 120
HIL-17L	PHCVSLQTGSHMDPLGNSVPLYHNQTVYRRPCHGEEGTHRRYCYCLERRLYRVSLA-CVCV LGCVNPFMTMQE-DRSMVSVPVF-SQVPVRRRLCPPPPRTGP--CRQRAVM <b>E</b> TIVAGGCTCI	130 140 150 160 170 180 130 140 150 160 170 180
HIL-20		
HIL-20		

190 RPRVMA  
HIL-171

hill-20

**Figure 5**  
Pile-Up of Human IL-17 Like Amino Acid Sequence, hIL-17L, (SEQ ID NO:2)  
with a Known Human IL-17 Amino Acid Sequence, hIL-17b (SEQ ID NO:7)

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Family Member

SCORES Init1: 124    Initn: 124    Opt: 178  
Smith-Waterman score: 178;    35.6% identity in 90 aa overlap

	70	80	90	100	110	120	
hIL-17L	RWSTVVPFPLEPARPNRHPESCRASEDGPLNSRAISPMWRYELDRDLNRLPQDLYHARCLC	:   :       :   :   :   :					
hIL-17b	RNIEEMVAQLRNSSELAQRKCEVNILQLWMSNKRSLSPWGYISINHDPSRIPVVDLPEARCLC	70	80	90	100	110	120
	130	140	150	160	170	180	
hIL-17L	PHCVSLQTGSHMDPLGNNSVPLYHNQTVFYRRPCHGEEGTHRRYCLERRLYR-VSLACVCV	:   :       :       :       :   :   :   :					
hIL-17b	LGCVNPFMQE-DRSMVSVPVF-SQVPVRRRLCPPPPRTGP--CRQRRAVMETIAVGCTCI	130	140	150	160	170	
	190						
hIL-17L	RPRVMA						
hIL-17b	F						
	180						

**Figure 6A**  
**Pile-Up of Human IL-17 Like Amino Acid Sequence, hIL-17L, (SEQ ID NO:2)**  
**with Amino Acid Sequence of a Known Human IL-17 Family Member,**  
**hIL-17C (SEQ ID NO:8)**

SCORES    Initl: 149    Initn: 194    Opt: 236

Smith-Waterman score: 243;    34.5% identity in 171 aa overlap

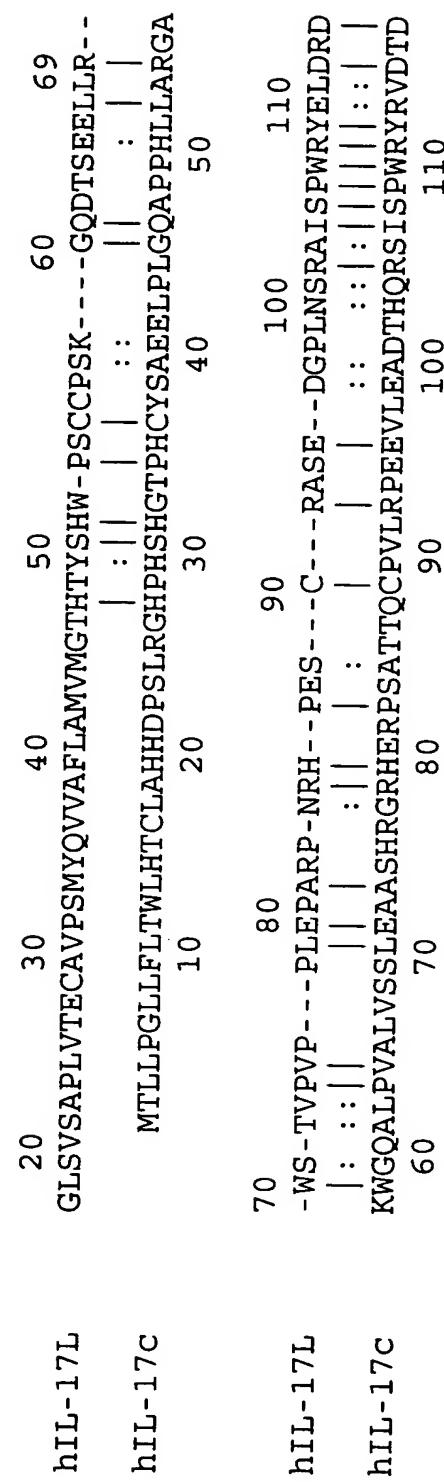


Figure 6B

hIL-17L 120 LNRLPQDLYHARCLCPHCVSLQQTGSHMDPLGNSVPLYHNQTVYRRPCHGEEG---THR  
130 :|:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:  
140 EDRYPQKLAFAECLCRGCIDARTGRETAAL-NSVRLLQSLLVLRRPC-SRDGSGLPTPG  
150 120 130 140 150 160 170 169  
hIL-17L 170 RYCLERRLYRVSLLACVCVRPRVMA  
180 :||:||:||:||:||:||:||:||:  
190 AFAFHTEFIHVPGCTCVLPRSV  
180 190

Figure 7

Northern Blot Expression Analysis of TH00-018  
Necropsied Transgenic Founders

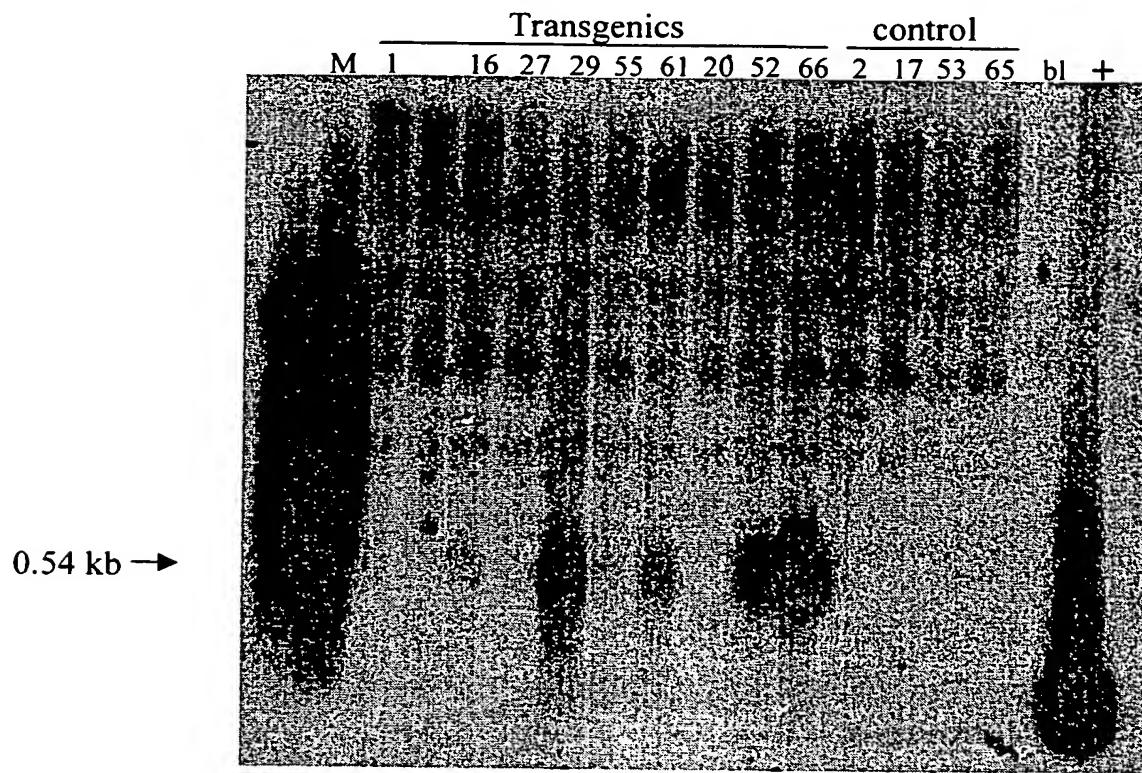


Figure 8

Northern Blot Expression Analysis of TH00-018  
Hepatectomized Transgenic Founders

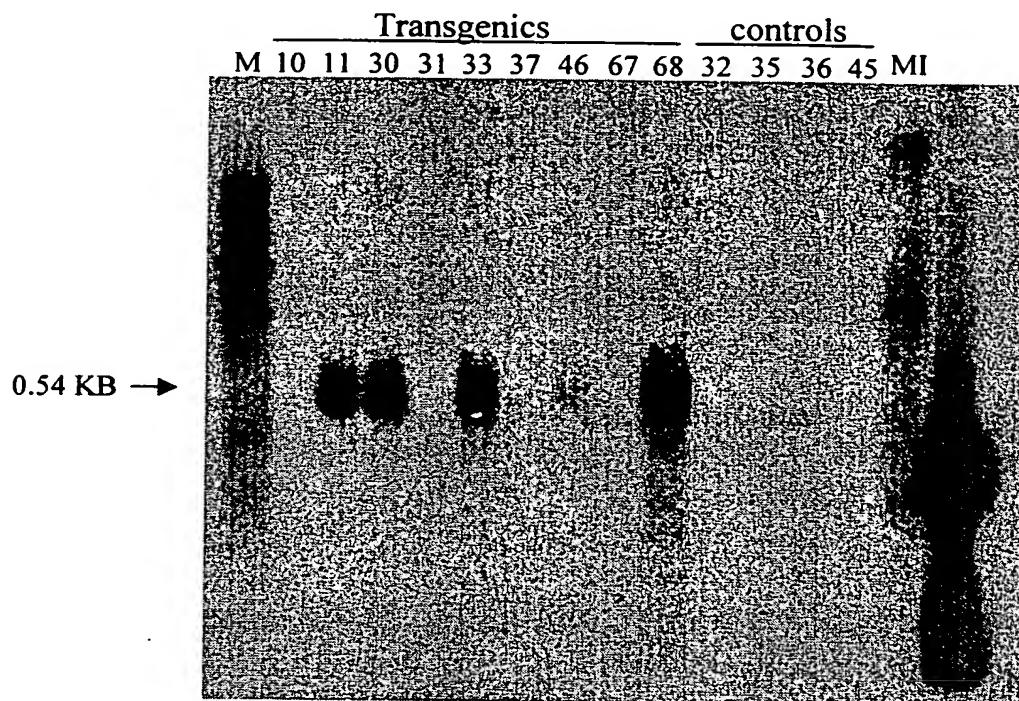


Figure 9

# Non-Transgenics      IL-17E Transgenics

A



Lymph Node H&E 2x

B

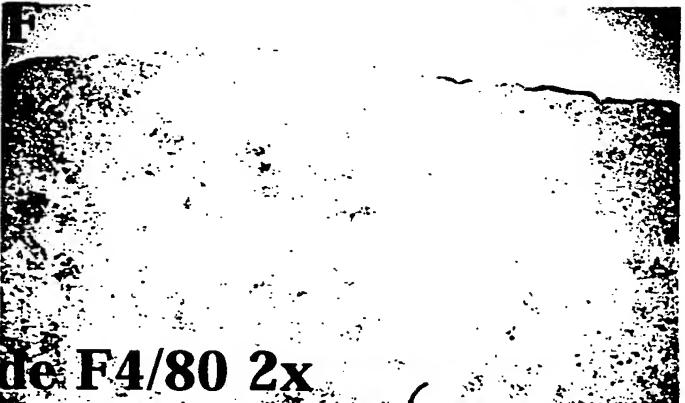


C



Lymph Node B220 2x

D



E



Lymph Node F4/80 2x

F

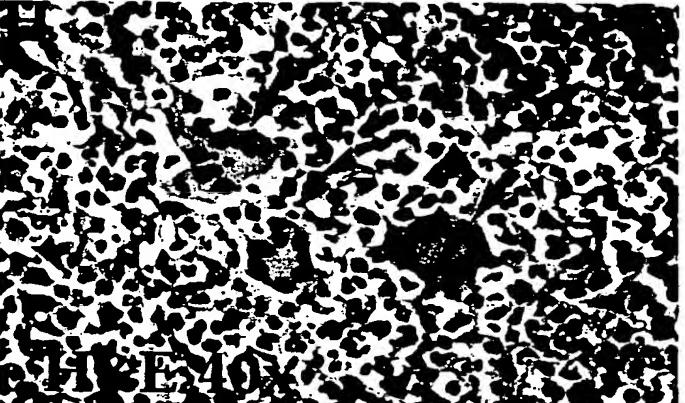
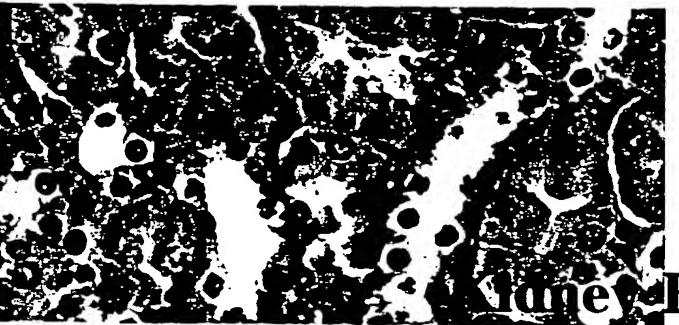
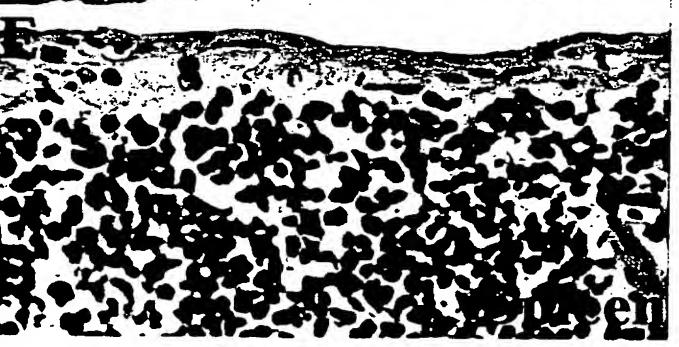
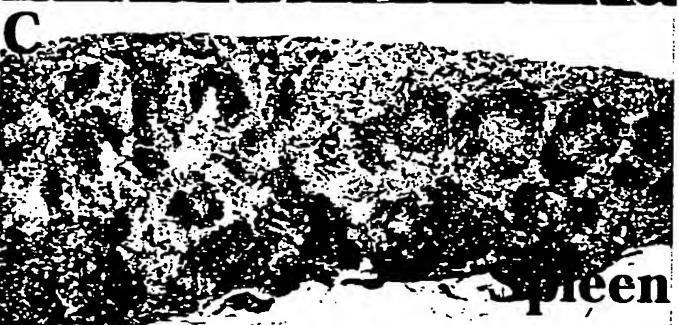
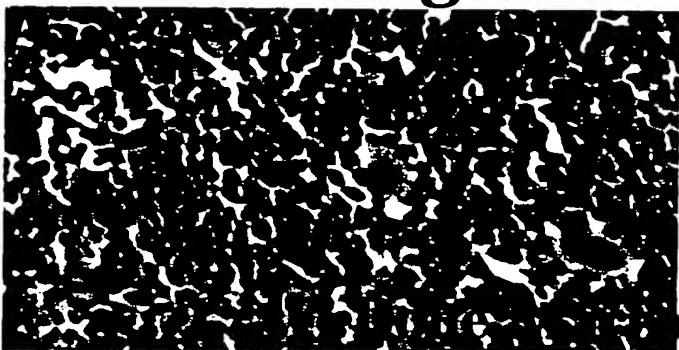


Figure 10

## Non-Transgenics



## IL-17E Transgenics

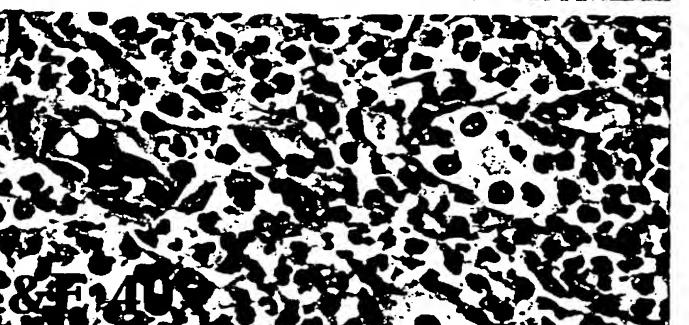


Figure 11

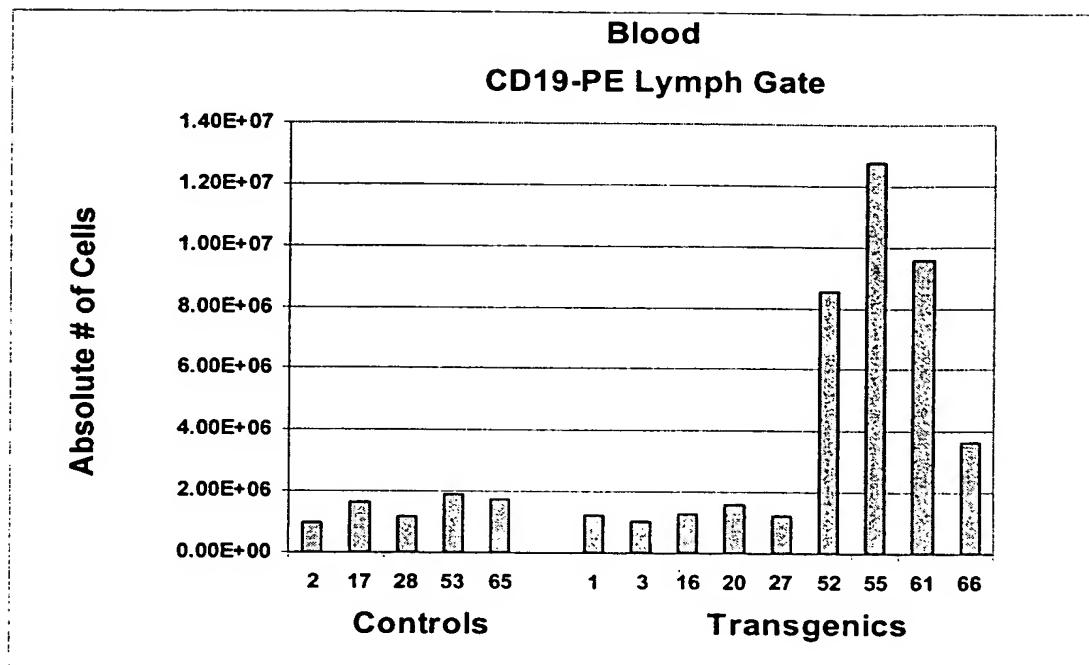


Figure 12

2 17 28 53 65 1 3 16 20 27 29 52 55 61 66

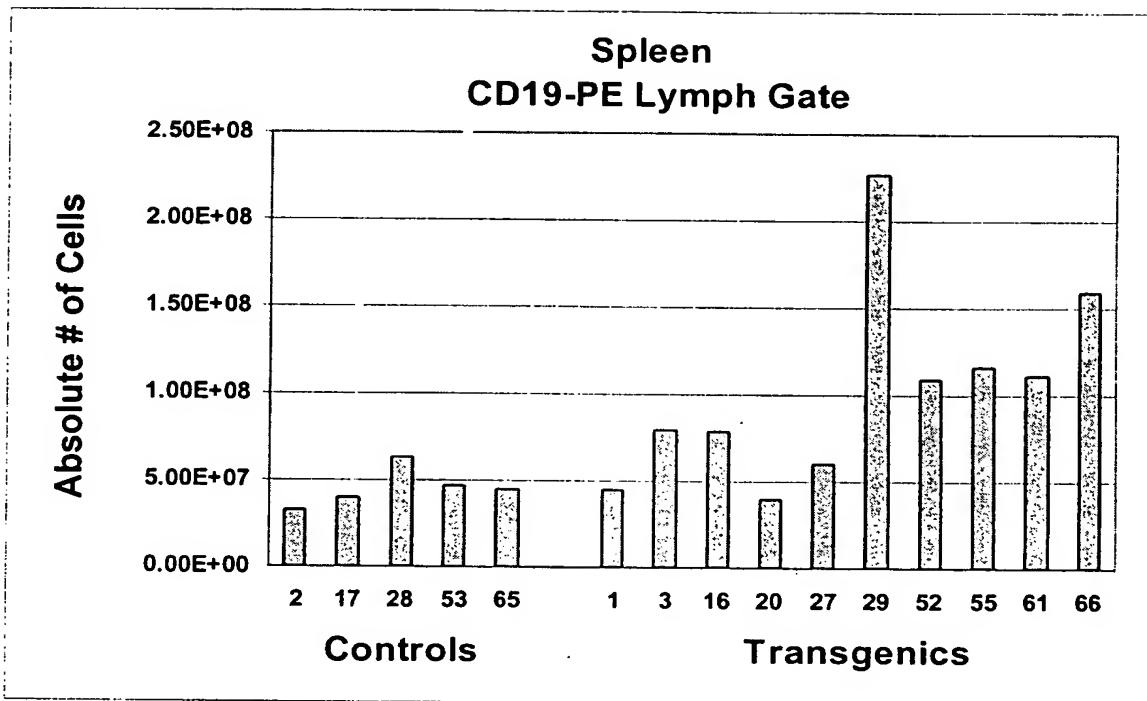


Figure 13

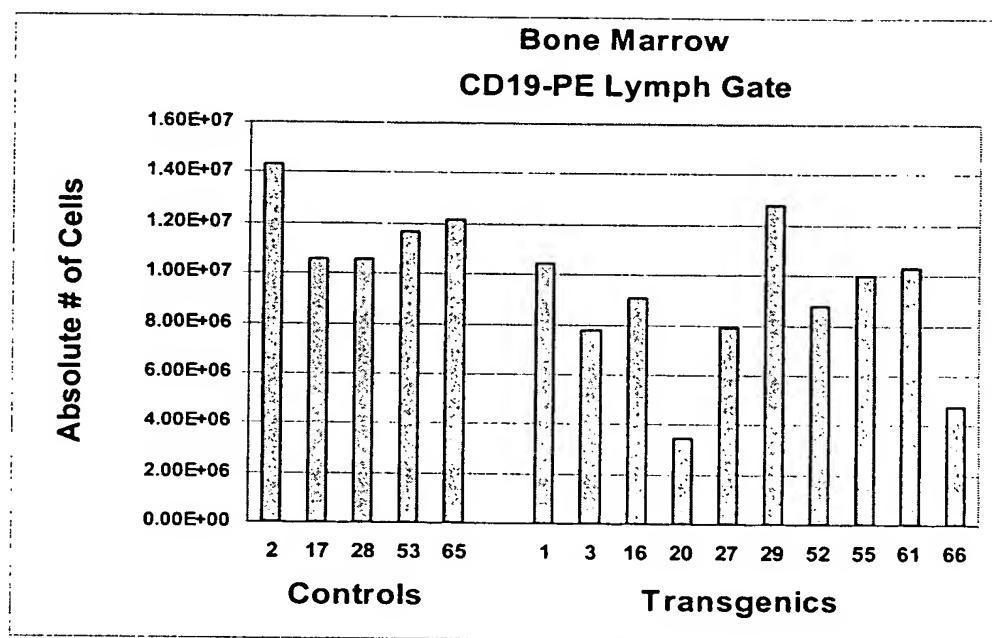


Figure 14

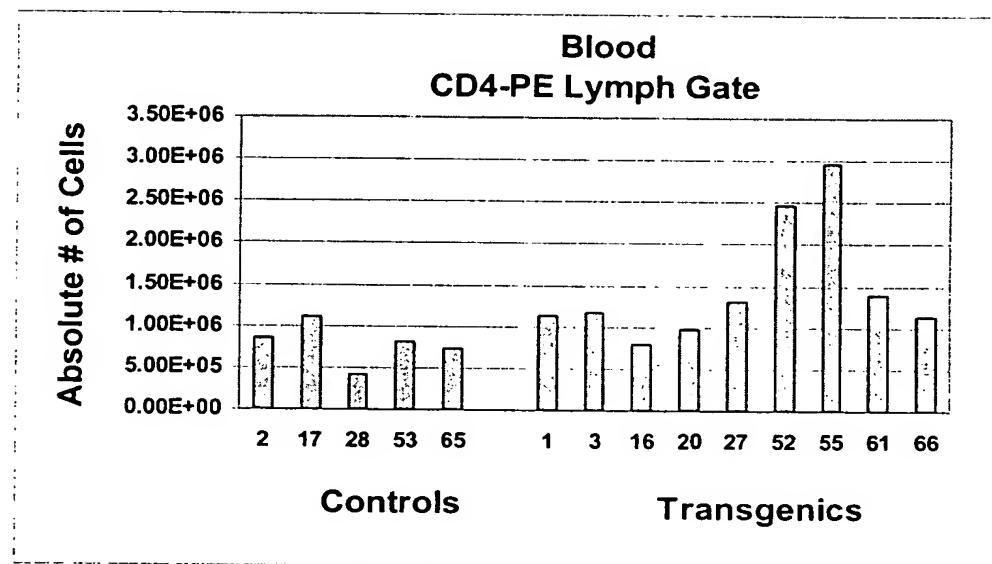


Figure 15

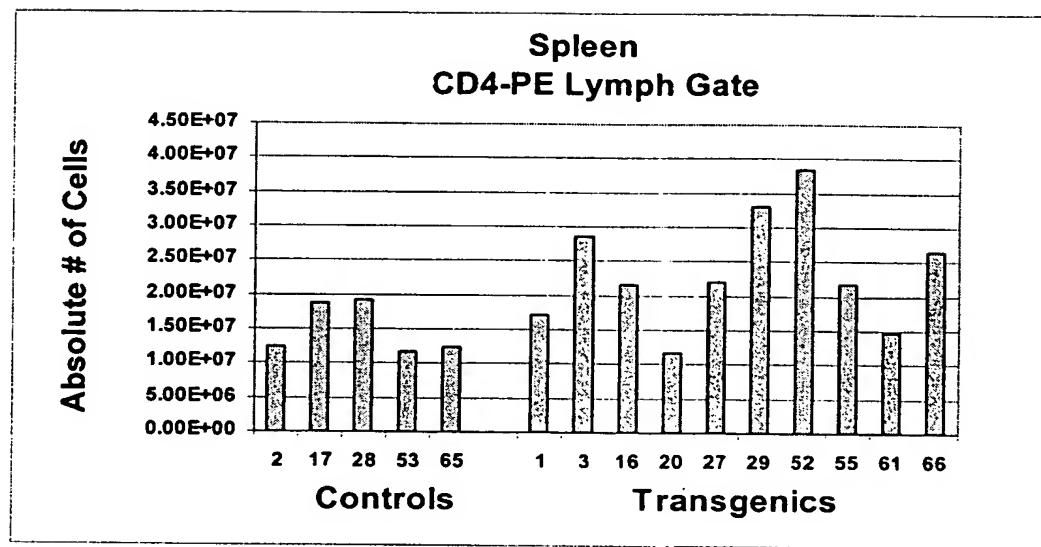


Figure 16

## CD45R+ CELLS EXPRESSING IL17Br IN TRANSGENIC BONE MARROW

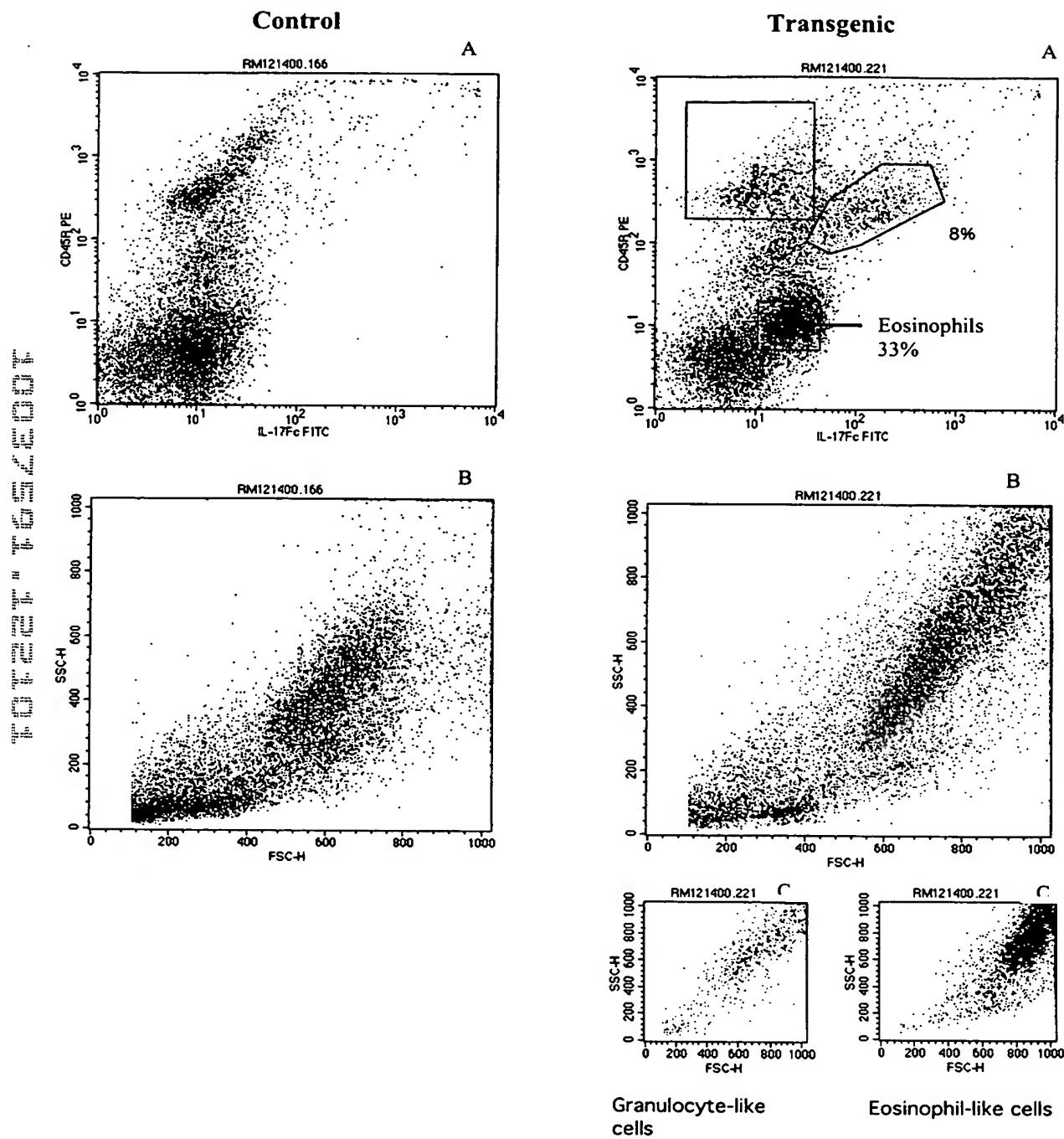


Figure 17

CD4+ CELLS EXPRESSING  
IL17Br IN TRANSGENIC BONE  
MARROW

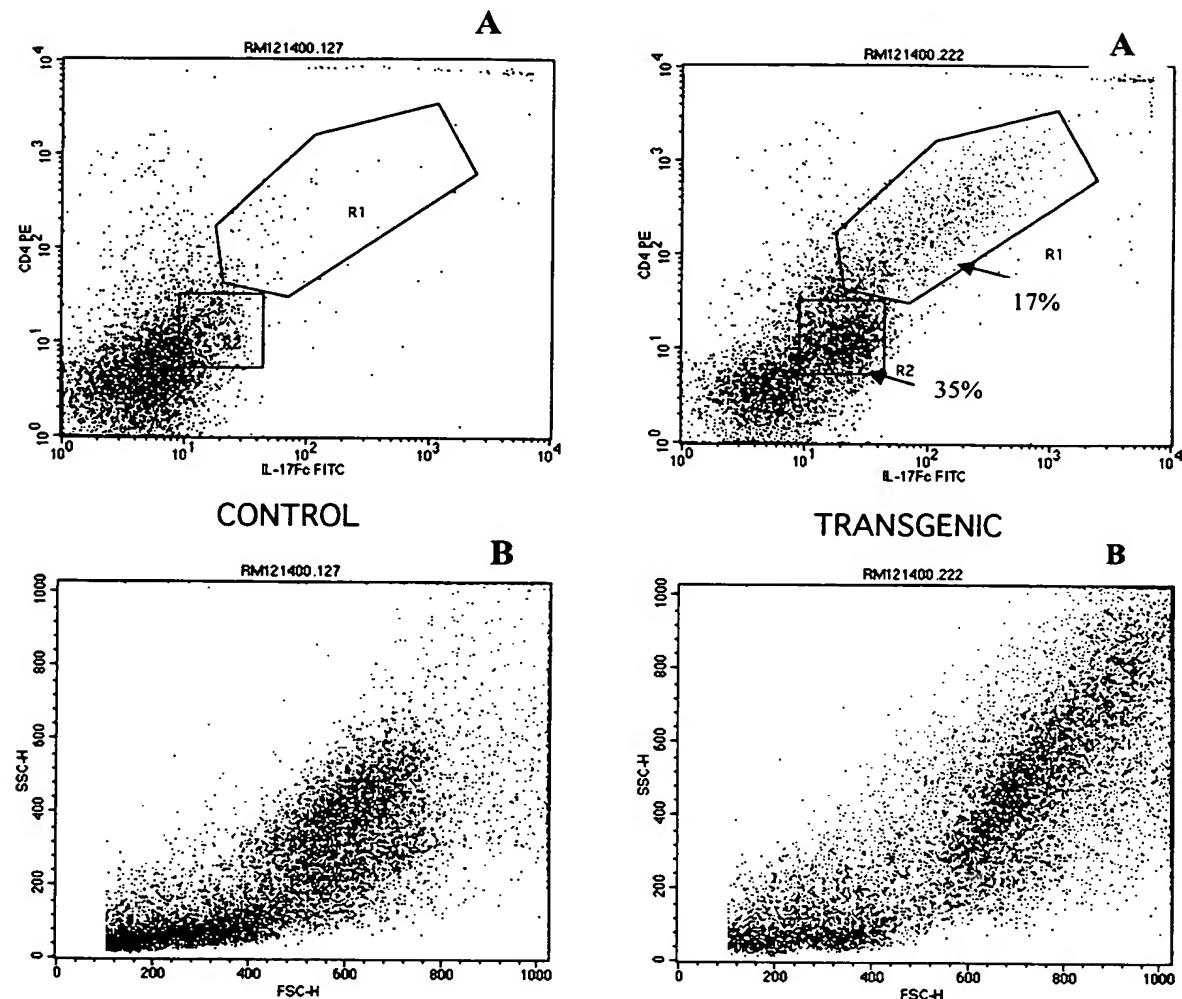


Figure 18

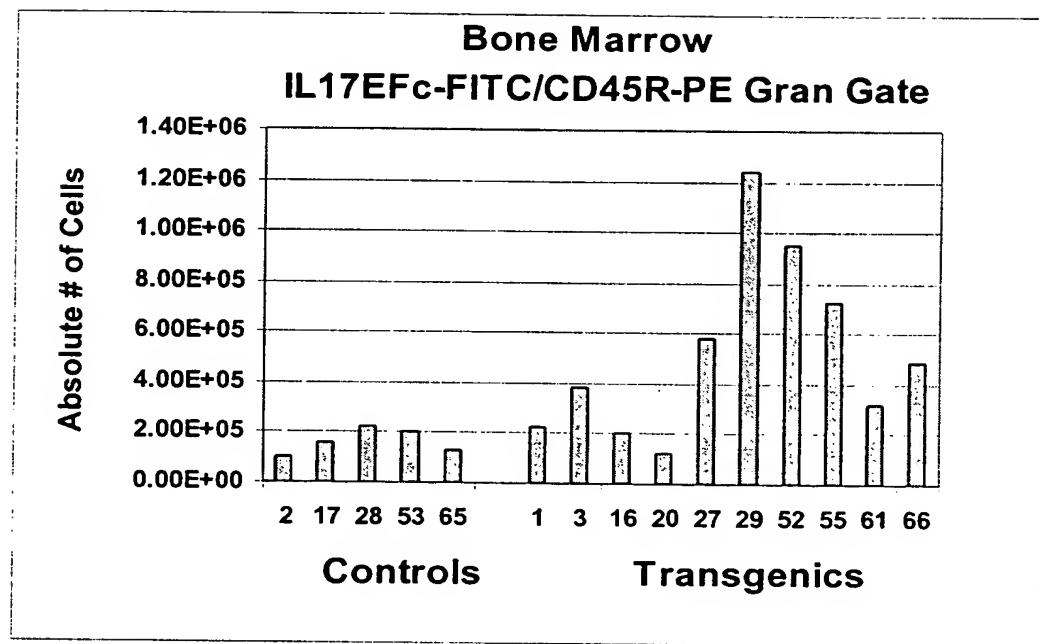


Figure 19

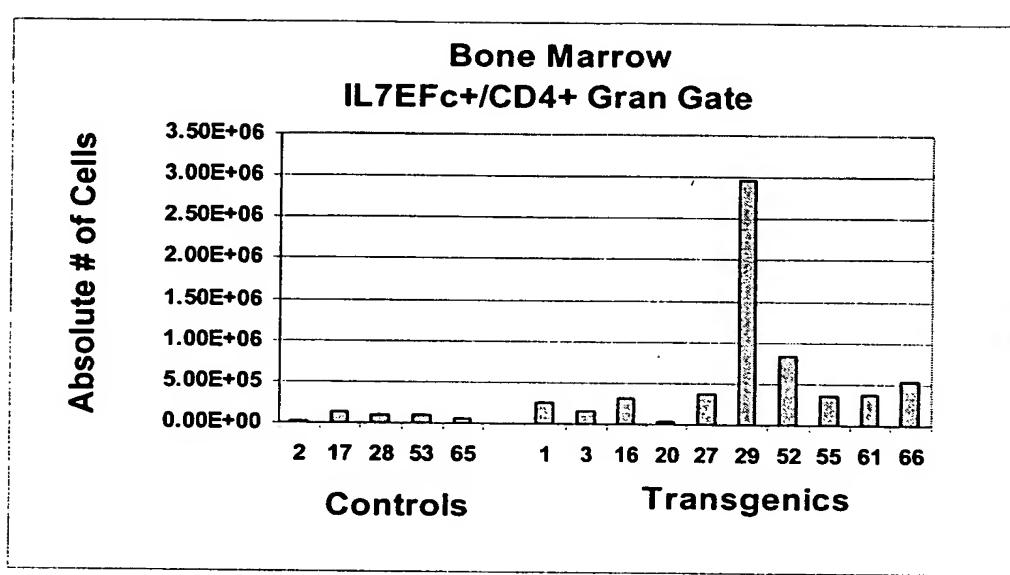
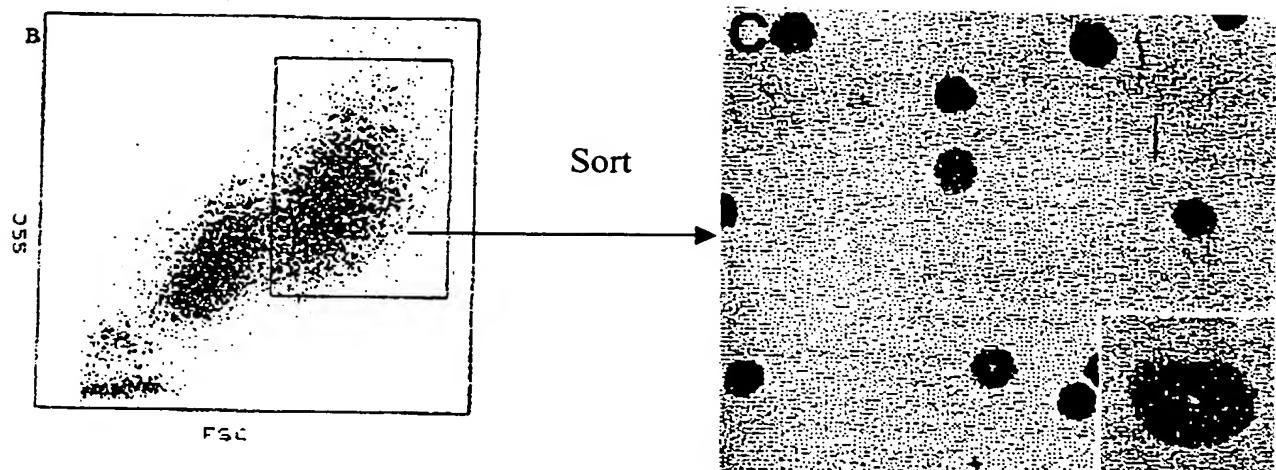


Figure 20



10 20 30 40 50 60 70 80 90 100

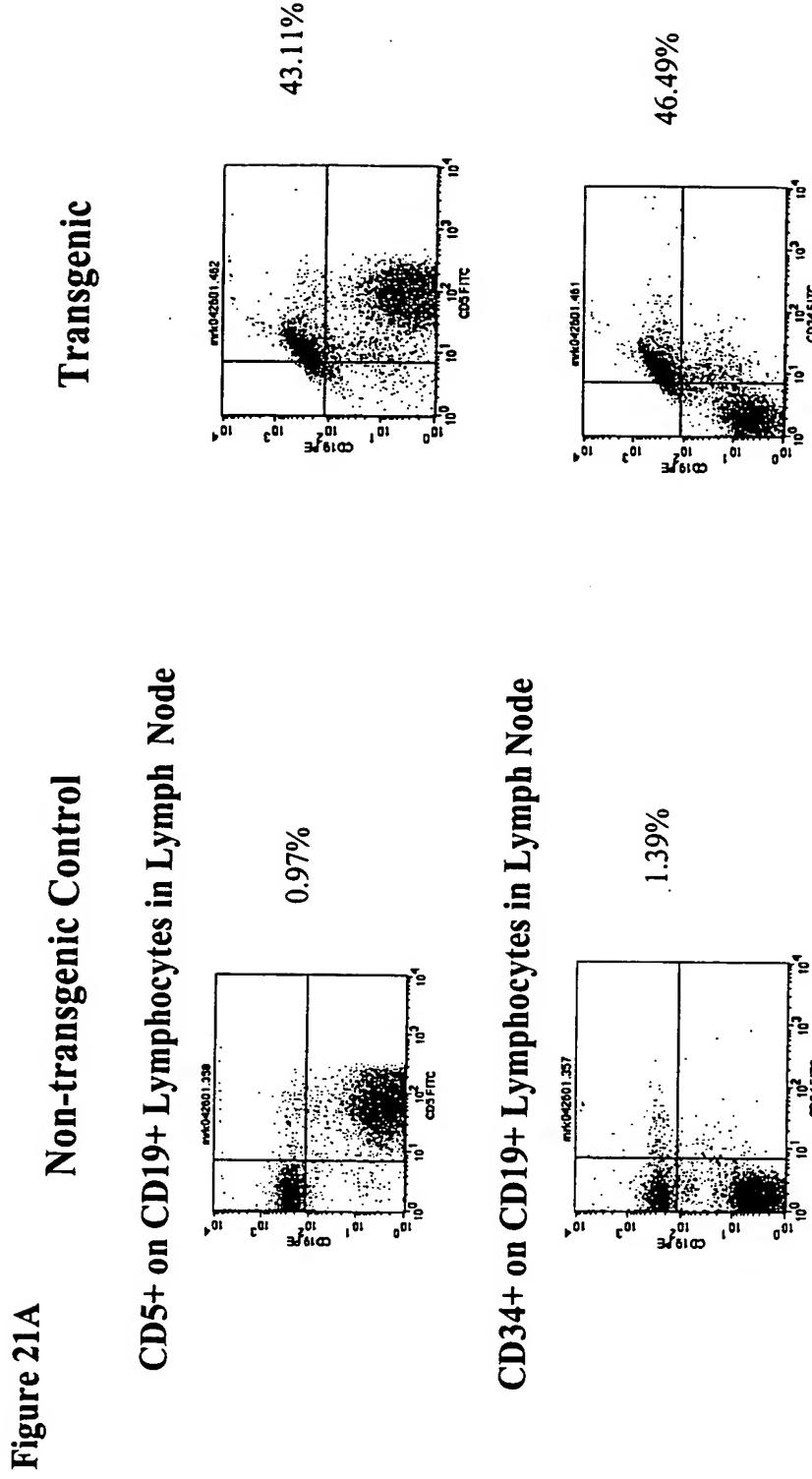


Figure 21B

## CD4 Expression on Eosinophils in Bone Marrow

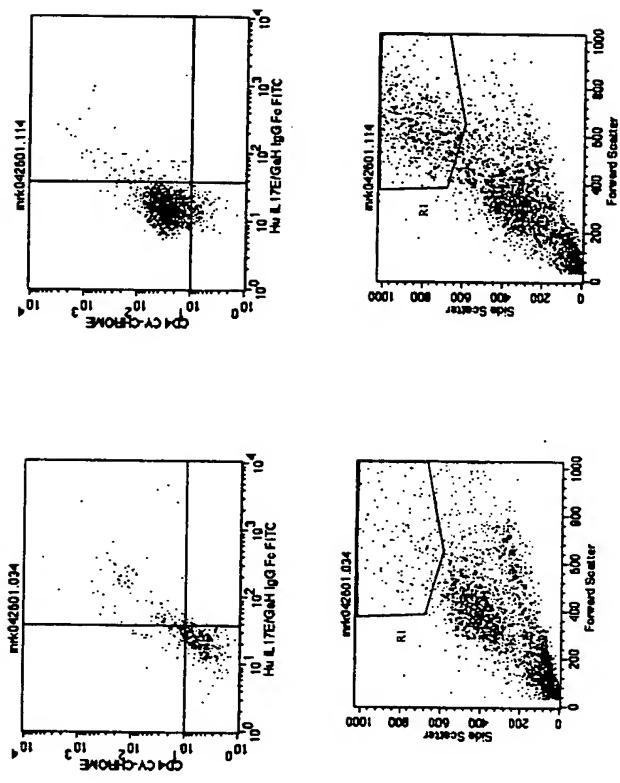


Figure 22

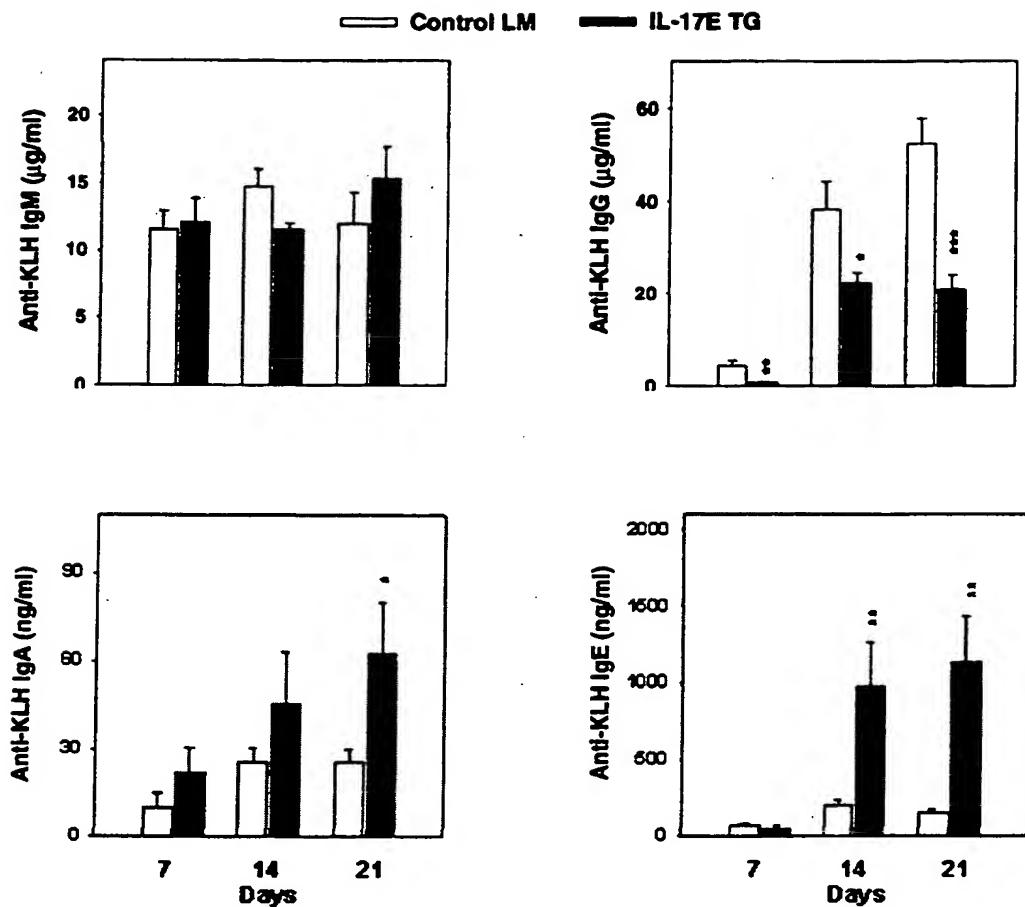


Figure 23

